

- (A) exploration for and development of mineral, energy, and water resources;
- (B) screening and characterizing sites for toxic and nuclear waste disposal;
- (C) land use evaluation and planning for environmental protection;
- (D) earthquake hazards reduction;
- (E) predicting volcanic hazards;
- (F) design and construction of infrastructure requirements such as utility lifelines, transportation corridors, and surface-water impoundments;
- (G) reducing losses from landslides and other ground failures;
- (H) mitigating effects of coastal and stream erosion;
- (I) siting of critical facilities; and
- (J) basic earth-science research;

(3) Federal agencies, State and local governments, private industry, and the general public depend on the information provided by geologic maps to determine the extent of potential environmental damage before embarking on projects that could lead to preventable, costly environmental problems or litigation;

(4) the combined capabilities of State, Federal, and academic groups to provide geologic mapping are not sufficient to meet the present and future needs of the United States for national security, environmental protection, and energy self-sufficiency of the Nation;

(5) States are willing to contribute 50 percent of the funding necessary to complete the mapping of the geology within the State;

(6) the lack of proper geologic maps has led to the poor design of such structures as dams and waste-disposal facilities;

(7) geologic maps have proven indispensable in the search for needed fossil-fuel and mineral resources; and

(8) a comprehensive nationwide program of geologic mapping is required in order to systematically build the Nation's geologic-map data base at a pace that responds to increasing demand.

#### (b) Purpose

The purpose of sections 31a to 31h of this title is to expedite the production of a geologic-map data base for the Nation, to be located within the United States Geological Survey, which can be applied to land-use management, assessment, and utilization, conservation of natural resources, groundwater management, and environmental protection.

(Pub. L. 102-285, §2, May 18, 1992, 106 Stat. 166.)

#### REFERENCES IN TEXT

Sections 31a to 31h of this title, referred to in subsection (b), was in the original "this Act", meaning Pub. L. 102-285, which is classified principally to sections 31a to 31h of this title. For complete classification of this Act to the Code, see Short Title note below and Tables.

#### SHORT TITLE

Section 1 of Pub. L. 102-285 provided that: "This Act [enacting this section and sections 31b to 31h of this title, amending sections 1457, 1457a, and 1782 of this title, sections 450ii-3, 665, 1133, and 3151 of Title 16, Conservation, section 262k of Title 22, Foreign Relations and Intercourse, section 1677 of Title 25, Indians, sections 1, 1a, 2, 3, 4, 4c, 4d, 5, 6, 7, 8, 411, 412, 804, 812, 871,

878, 1224, 1229, 1232, 1311, 1315, and 1604 of Title 30, Mineral Lands and Mining, and sections 5814 and 6505 of Title 42, The Public Health and Welfare, enacting provisions set out as notes under section 31 of this title and section 1 of Title 30, and amending provisions set out as a note under section 1231 of Title 30] may be cited as the 'National Geologic Mapping Act of 1992'."

#### SECTION REFERRED TO IN OTHER SECTIONS

This section is referred to in sections 31b, 31d, 31f, 31g, 31h of this title.

#### § 31b. Definitions

As used in sections 31a to 31h of this title:

(1) The term "advisory committee" means the advisory committee established under section 31d of this title.

(2) The term "Director" means the Director of the United States Geological Survey.

(3) The term "geologic mapping program" means the National Cooperative Geologic Mapping Program established by section 31c(a) of this title.

(4) The term "Secretary" means the Secretary of the Interior.

(5) The term "Survey" means the United States Geological Survey.

(Pub. L. 102-285, §3, May 18, 1992, 106 Stat. 167.)

#### § 31c. Geologic mapping program

##### (a) Establishment

There is established in the United States Geological Survey a National Cooperative Geologic Mapping Program. The geologic mapping program shall be developed in consultation with the advisory committee and shall be designed and administered to achieve the objectives set forth in subsection (c) of this section.

##### (b) Responsibilities of USGS

(1) The Survey shall be the lead Federal agency responsible for planning, developing priorities, coordinating, and managing the geologic mapping program. In carrying out this paragraph, the Secretary, acting through the Director, shall—

(A) develop a geologic mapping program implementation plan in accordance with section 31e of this title, which plan shall be submitted to the Committee on Natural Resources of the House of Representatives and the Committee on Energy and Natural Resources of the Senate within 300 days after May 18, 1992;

(B) appoint, with the advice and consultation of the State geological surveys, the advisory committee within 90 days after May 18, 1992, in accordance with section 31d of this title; and

(C) within 210 days after May 18, 1992, submit a report to the Committee on Energy and Natural Resources of the United States Senate and to the Committee on Natural Resources of the House of Representatives identifying—

(i) how the Survey will coordinate the development and implementation of the geologic mapping program;

(ii) how the Survey will establish goals, mapping priorities, and target dates for implementation of the geologic mapping program;

(iii) how long-term staffing plans for the various components of the geologic mapping

program will lead to successful implementation of the geologic mapping program; and

(iv) the degree to which geologic mapping activities traditionally funded by the Survey, including the use of commercially available aerial photography, geodesy, professional land surveying, photogrammetric mapping, cartography, photographic processing, and related services, can be contracted to professional private mapping firms.

(2) In addition to paragraph (1), the Secretary, acting through the Director, shall be responsible for developing, as soon as practicable—

(A) in cooperation with the State geological surveys, other Federal and State agencies, public and private sector organizations and academia, the geologic-map data base; and

(B) maps and mapping techniques which achieve the objectives specified in subsection (c) of this section.

**(c) Program objectives**

The objectives of the geologic mapping program shall include—

(1) determining the Nation's geologic framework through systematic development of geologic maps at scales appropriate to the geologic setting and the perceived applications, such maps to be contributed to the national geologic map<sup>1</sup> data base;

(2) development of a complementary national geophysical-map data base, geochemical-map data base, and a geochronologic and paleontologic data base that provide value-added descriptive and interpretive information to the geologic-map data base;

(3) application of cost-effective mapping techniques that assemble, produce, translate and disseminate geologic-map information and that render such information of greater application and benefit to the public; and

(4) development of public awareness for the role and application of geologic-map information to the resolution of national issues of land use management.

**(d) Program components**

The geologic mapping program shall include the following components:

(1) A Federal geologic mapping component, whose objective shall be determining the geologic framework of areas determined to be vital to the economic, social, or scientific welfare of the Nation. Mapping priorities shall be based on—

(A) national requirements for geologic-map information in areas of multiple-issue need or areas of compelling single-issue need; and

(B) national requirements for geologic-map information in areas where mapping is required to solve critical earth-science problems.

(2) A geologic mapping support component, whose objective shall be providing interdisciplinary support for the Federal Geologic Mapping Component. Representative categories of interdisciplinary support shall include—

(A) establishment of a national geologic-map data base, established pursuant to section 31f of this title;

(B) studies that lead to the implementation of cost-effective digital methods for the acquisition, compilation, analysis, cartographic production, and dissemination of geologic-map information;

(C) paleontologic investigations that provide information critical to understanding the age and depositional environment of fossil-bearing geologic-map units, which investigations shall be contributed to a national paleontologic data base;

(D) geochronologic and isotopic investigations that (i) provide radiometric age dates for geologic-map units and (ii) fingerprint the geothermometry, geobarometry, and alteration history of geologic-map units, which investigations shall be contributed to a national geochronologic data base;

(E) geophysical investigations that assist in delineating and mapping the physical characteristics and three-dimensional distribution of geologic materials and geologic structures, which investigations shall be contributed to a national geophysical-map data base; and

(F) geochemical investigations and analytical operations that characterize the major- and minor-element composition of geologic-map units, and that lead to the recognition of stable and anomalous geochemical signatures for geologic terrains, which investigations shall be contributed to a national geochemical-map data base.

(3) A State geologic mapping component, whose objective shall be determining the geologic framework of areas that the State geological surveys determine to be vital to the economic, social, or scientific welfare of individual States. Mapping priorities shall be determined by multirepresentational State panels and shall be integrated with national priorities. Federal funding for the State component shall be matched on a one-to-one basis with non-Federal funds.

(4) A geologic mapping education component, whose objective shall be—

(A) to develop the academic programs that teach earth-science students the fundamental principles of geologic mapping and field analysis; and

(B) to provide for broad education in geologic mapping and field analysis through support of field teaching institutes.

Investigations conducted under the geologic mapping education component shall be integrated with the other mapping components of the geologic mapping program, and shall respond to priorities identified for those components.

(Pub. L. 102-285, § 4, May 18, 1992, 106 Stat. 167; Pub. L. 103-437, § 16(a)(1), Nov. 2, 1994, 108 Stat. 4594.)

AMENDMENTS

1994—Subsec. (b)(1)(A), (C). Pub. L. 103-437 substituted “Natural Resources” for “Interior and Insular Affairs” before “of the House”.

<sup>1</sup> So in original. Probably should be “geologic-map”.

## CHANGE OF NAME

Committee on Natural Resources of House of Representatives treated as referring to Committee on Resources of House of Representatives by section 1(a) of Pub. L. 104-14, set out as a note preceding section 21 of Title 2, The Congress.

## SECTION REFERRED TO IN OTHER SECTIONS

This section is referred to in sections 31b, 31f of this title.

**§ 31d. Advisory committee****(a) Establishment**

There shall be established a sixteen member geologic mapping advisory committee to advise the Director on planning and implementation of the geologic mapping program. The President shall appoint one representative each from the Environmental Protection Agency, the Department of Energy, the Department of Agriculture, and the Office of Science and Technology Policy. Within 90 days and with the advice and consultation of the State Geological Surveys, the Secretary shall appoint to the advisory committee 2 representatives from the Survey (including the Chief Geologist, as Chairman), 4 representatives from the State geological surveys, 3 representatives from academia, and 3 representatives from the private sector.

**(b) Duties**

The advisory committee shall—

- (1) review and critique the draft implementation plan prepared by the Director pursuant to section 31e of this title;
- (2) review the scientific progress of the geologic mapping program; and
- (3) submit an annual report to the Secretary that evaluates the progress of the Federal and State mapping activities and evaluates the progress made toward fulfilling the purposes of sections 31a to 31h of this title.

(Pub. L. 102-285, § 5, May 18, 1992, 106 Stat. 169.)

## TERMINATION OF ADVISORY COMMITTEES

Advisory committees established after Jan. 5, 1973, to terminate not later than the expiration of the 2-year period beginning on the date of their establishment, unless, in the case of a committee established by the President or an officer of the Federal Government, such committee is renewed by appropriate action prior to the expiration of such 2-year period, or in the case of a committee established by Congress, its duration is otherwise provided by law, see section 14 of Pub. L. 92-463, Oct. 6, 1972, 86 Stat. 776, set out in the Appendix to Title 5, Government Organization and Employees.

## SECTION REFERRED TO IN OTHER SECTIONS

This section is referred to in sections 31b, 31c of this title.

**§ 31e. Geologic mapping program implementation plan**

The Secretary, acting through the Director, shall, with the advice and review of the advisory committee, prepare an implementation plan for the geologic mapping program. The plan shall identify the overall management structure and operation of the geologic mapping program and shall provide for—

- (1) the role of the Survey in its capacity as overall management lead, including the re-

sponsibility for developing the national geologic mapping program that meets Federal needs while simultaneously fostering State needs;

(2) the responsibilities accruing to the State geological surveys, with particular emphasis on mechanisms that incorporate their needs, missions, capabilities, and requirements into the nationwide geologic mapping program;

(3) mechanisms for identifying short- and long-term priorities for each component of the geologic mapping program, including—

(A) for the Federal geologic mapping component, a priority-setting mechanism that responds both to (i) Federal mission requirements for geologic-map information, and (ii) critical scientific problems that require geologic-map control for their resolution;

(B) for the geologic mapping support component, a strong interdisciplinary research program plan in isotopic and paleontologic geochronology, geophysical mapping, and process studies to provide data to and interpret results from geologic mapping;

(C) for the State geologic mapping component, a priority-setting mechanism that responds to (i) specific intrastate needs for geologic-map information, and (ii) interstate needs shared by adjacent entities that have common requirements; and

(D) for the geologic mapping education component, a priority-setting mechanism that responds to requirements for geologic-map information that are driven by Federal and State mission requirements;

(4) a description of the degree to which the Survey can acquire, archive, and use Side-Looking Airborne Radar (SLAR) or Interferometric Synthetic Aperture Radar (IFSAR) data in a manner that is technically appropriate for geologic or related mapping studies;

(5) a mechanism for adopting scientific and technical map standards for preparing and publishing general-purpose and special-purpose geologic maps to (A) assure uniformity of cartographic and scientific conventions, and (B) provide a basis for judgment as to the comparability and quality of map products; and

(6) a mechanism for monitoring the inventory of published and current mapping investigations nationwide in order to facilitate planning and information exchange and to avoid redundancy.

(Pub. L. 102-285, § 6, May 18, 1992, 106 Stat. 170.)

## SECTION REFERRED TO IN OTHER SECTIONS

This section is referred to in sections 31c, 31d of this title.

**§ 31f. National geologic-map data base****(a) Establishment**

The Survey shall establish a national geologic-map data base. Such data base shall be a national archive that includes all maps developed pursuant to sections 31a to 31h of this title, the data bases developed pursuant to the investigations under sections 31c(d)(2)(C), (D), (E), and (F) of this title, and other maps and data as the Survey deems appropriate.